CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
FAX (415) 904- 5400

Th 12b

STAFF RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-059-05
Staff:	LJS-SF
File Date:	4/21/2005
60th Day:	6/20/2005
75th Day:	7/5/2005
Commission Meeting:	6/9/2005

FEDERAL AGENCY: **U.S. International Boundary and Water Commission**

DEVELOPMENT LOCATION: South Bay International Wastewater Treatment Plant (SBIWTP), Tijuana River Valley, San Diego (Exhibits 1-3)

DEVELOPMENT DESCRIPTION: SBIWTP compliance with the Clean Water Act through discharge of secondary-treated wastewater through the South Bay Ocean Outfall (SBOO), increased discharge volume through the SBOO, a new pump station at the SBIWTP, and force main and gravity pipelines to and from the International Border.

SUBSTANTIVE FILE DOCUMENTS: See Pages 20-21

EXECUTIVE SUMMARY

The United States International Boundary and Water Commission (USIBWC) has submitted a consistency determination for diversion of advanced primary treated wastewater from the existing South Bay International Wastewater Treatment Plant (SBIWTP) in San Diego to a proposed secondary wastewater treatment facility in Mexico, and the discharge of secondary treated wastewater via the SBIWTP and the South Bay Ocean Outfall (SBOO). The Commission is reviewing the proposed pump station and pipeline segments located within the SBIWTP and the proposed increase in the discharge of secondary treated wastewater through the SBOO from the existing 25 million gallons per day (mgd) to 59 mgd by the year 2023.

The subject consistency determination is the latest in a series of submittals by the USIBWC since 1994 for collection, treatment, and discharge of wastewater that flows by gravity into the United States from Mexico. The discharge of sewage into the Tijuana River has long degraded the water quality of the Tijuana River, its estuary, and nearby ocean waters. In February 1994 the Commission concurred with a consistency determination (CD-002-94) submitted by the USIBWC for construction of a 25 mgd secondary wastewater treatment plant on a 75-acre site on the west bank of the Tijuana River at the International Border in California, 3.5 miles inland from the Pacific Ocean. The SBIWTP included wastewater collection and distribution facilities, an 11-foot-diameter tunneled SBOO extending to a point 3.5 miles offshore in 93 feet of water, and discharge of 25 mgd of secondary treated wastewater through the SBOO into the Pacific Ocean. The SBIWTP was designed to collect and treat *dry-weather* flows of raw sewage in the Tijuana River Valley, thereby reducing wastewater impacts on water quality, habitat, and recreation. However, since its completion in 1997 the SBIWTP has only operated at the advanced-primary treatment level due to numerous factors which delayed the construction of the secondary treatment facility. The Commission concurred in 1998 with the discharge of advanced primary-treated effluent through the SBOO, finding that this interim discharge (until such time as secondary treament is provided) would lead to significant improvements in water quality and marine resource health by reducing the amount of raw sewage discharged into the Tijuana River Valley.

The proposed project provides for an increased volume of wastewater receiving a higher level of treatment prior to discharge through the SBOO into the Pacific Ocean. The proposed increase in wastewater discharge through the SBOO will occur due to the construction of a secondary treatment facility in Mexico that will have the capacity to treat increased volumes of wastewater generated in Tijuana, which in turn should lead to a decrease in (but not a complete elimination of) the volume of untreated wastewater flowing north across the International Border into the Tijuana River Estuary and, ultimately, the Pacific Ocean. Discharge of up to 59 mgd of secondary treated wastewater (by the year 2023) would eliminate the current 25 mgd discharge into the ocean of advanced primary effluent from the SBIWTP, and would allow the plant to comply with California Ocean Plan standards, as required under the standards of the California Regional Water Quality Control Board.

The Commission has concurred with numerous consistency and negative determinations for construction, operation, and modifications of the SBIWTP, finding that marine resources present

in the Tijuana River estuary and in nearby ocean waters must be protected from unavoidable adverse water quality effects generated by the SBIWTP. The proposed increase in the discharge volume of secondary-treated wastewater (from a proposed secondary wastewater treatment facility in Mexico) through the South Bay Ocean Outfall is consistent with the water quality and marine resource policies (Sections 30230, 30231, and 30412) of the Coastal Act.

The proposed construction of the Bajagua Project Pump Station and approximately 800 to 1,400 feet of force main and return flow pipeline segments between the pump station and the International Border will occur within the existing developed footprint of the South Bay International Wastewater Treatment Plant. The proposed construction within the SBIWTP will not adversely affect sensitive habitat or species, and the proposed project is consistent with the environmentally sensitive habitat policy (Section 30240) of the Coastal Act.

STAFF SUMMARY AND RECOMMENDATION

I. History and Background. The subject consistency determination is the latest in a series of submittals by the United States International Boundary and Water Commission (USIBWC) since 1994 for collection, treatment, and discharge of sewage flows in the Tijuana River Valley (see Substantive File Document listing on pages 20-21 of this report). The discharge of sewage into the Tijuana River has long degraded the quality of coastal waters, including the Tijuana River, its estuary, and nearshore areas. The sewage problem has existed since the 1930s and has resulted in adverse effects to water quality, habitat, and recreational resources.

In February 1994, the Commission concurred with consistency determination CD-002-94 submitted by the USIBWC for construction of a 25 million gallon-per-day (mgd) secondary wastewater treatment plant on a 75-acre site on the west bank of the Tijuana River at the International Border in California, 3.5 miles inland from the Pacific Ocean. The South Bay International Wastewater Treatment Plant (SBIWTP) included wastewater collection and distribution facilities, an 11-foot-diameter tunneled South Bay Ocean Outfall (SBOO) extending from the terminus of the existing South Bay Land Outfall (constructed under coastal development permit 6-88-277) to a point 3.5 miles offshore in 93 feet of water), and discharge of 25 mgd of secondary treated wastewater through the SBOO into the Pacific Ocean.

[The SBOO was designed and constructed to carry an average daily flow of 132 mgd and a peak daily flow of 258 mgd to enable use of the outfall by both the SBIWTP (at a potential future capacity of 100 mgd) and the City of San Diego's South Bay Wastewater Reclamation Plant (the City reserved 32 mgd of outfall discharge capacity for this and other water reclamation plants). However, under CD-002-94, the USIBWC received Commission concurrence for an average daily discharge of 25 mgd from the SBIWTP and acknowledged that an increase in the average daily discharge would require additional federal consistency review by the Commission.]

The purpose of the SBIWTP is to collect and treat *dry-weather* flows of raw sewage in the Tijuana River, thereby reducing water quality, habitat, and recreational impacts from discharge of sewage into the River. During storm events, the volume of water is too great to allow full collection and treatment. As a result, while the plant continues to operate during wet weather,

there is still raw sewage in the river during these wet weather peak flows. In addition, the Commission noted in its concurrence with CD-002-94 that discharge of raw sewage and primary treated wastewater into the surf zone approximately six miles south of the International Boundary at Mexico's San Antonio de Los Buenos treatment plant would continue to create water pollution problems in U.S. waters. Notwithstanding these limitations, the Commission found that:

> *[T]he natural resource and public health benefits realized by eliminating the discharge of several million gallons per day of raw sewage into the Tijuana River estuary far outweigh the minor, adverse impacts associated with the discharge of up to 25 mgd of secondary treated wastewater 3.5 miles offshore.*

Construction of the advanced primary treatment facility at the SBIWTP was completed in 1997. To address public concerns over health and environmental hazards from the untreated sewage in the Tijuana River, USIBWC began operating the plant prior to completion of the SBOO and the secondary treatment works, with discharge of advanced primary effluent through the City of San Diego's Point Loma Ocean Outfall and, when completed, the SBOO. The Coastal Commission concurred with this interim operating plan (proposed to run to the year 2001) in December 1996 through consistency determination CD-137-96.

In October 1998 the San Diego Regional Water Quality Control Board (RWQCB) approved Addendum No. 2 to Cease and Desist Order No. 96-52 (which addressed the discharge of advanced primary effluent from the SBIWTP and the schedule to achieve full secondary treatment) and directed the USIBWC to:

- Submit a report with the current results of the Toxic Identification Evaluation [a step in solving the acute toxicity problem in the SBIWTP effluent] by November 1, 1998, and a final report by August 1, 1999.

- Achieve compliance with the discharge specification for acute toxicity in Cease and Desist Order No. 96-52 by May 16, 2000. All other discharge specifications shall apply to the undiluted effluent from the SBIWTP discharged through the SBOO.

- With the concurrence of U.S. EPA, submit a definitive schedule for selection, installation, and implementation of secondary treatment at the SBIWTP, including firm dates for all significant milestones, to this Board prior to November 18, 1998.

- Achieve a Record of Decision for implementation of secondary treatment at the SBIWTP in accordance with the schedule submitted pursuant to Directive 3 (above), prior to May 1, 1999.

In November 1998, the Commission concurred with IBWC's determination (submitted as a negative determination (ND-122-98), but reviewed by the Commission), finding that interim discharge through the SBOO of advanced primary effluent to the year 2001 remained consistent with the CCMP, despite the fact that it would periodically exceed California Ocean Plan

standards for acute toxicity and dioxin. The Commission found that the interim discharge proposed by the USIBWC and approved by the RWQCB would lead to significant improvements in water quality and marine resource health in the Tijuana River, its estuary, the shoreline, and offshore waters by reducing the amount of raw sewage discharged into these areas. In ND-122-98 the Commission noted that:

> *Discharge of advanced primary treated effluent that exceeds acute toxicity and dioxin standards at a point three miles offshore is less environmentally damaging than: (1) discharge of that effluent into the Tijuana River; or (2) discharge of untreated sewage into the Tijuana River should the SBIWTP not be utilized as envisioned in CD-137-96.*

In the subject consistency determination, the USIBWC documents subsequent developments in the history of the SBIWTP and the efforts to achieve secondary treatment of wastewater discharged through the South Bay Ocean Outfall:

> *In 1999, the USIBWC completed an SEIS which examined long-term treatment options for complying with the CWA by achieving secondary treatment at the SBIWTP and decided to build a completely mixed aerated pond system at the former Hofer site adjacent to the SBIWTP advanced primary treatment facilities.* [Note: To this end, the Commission concurred in February 1999 with USIBWC's CD-062-98 for construction of a Completely Mixed Aerated Ponds secondary treatment facility at the SBIWTP.] *Although the USEPA and USIBWC sought Congressional approval to raise the funding limits to implement this decision, Congress declined to fund the project.*
>
> *Since that time, additional information became available and new circumstances arose that required additional consideration for achieving CWA compliance. Namely:*
>
> - *In 1999, the Surfrider Foundation filed a lawsuit (Case No. 99-CV-2441BTM [JFS]) against USIBWC alleging violations of the SBIWTP's NPDES permit. This lawsuit was resolved through a consent decree that requires the USIBWC to perform additional studies and monitoring of discharges from the SBIWTP.*
> - *In November 2000, Congress passed the Tijuana River Valley Estuary and Beach Sewage Cleanup Act of 2000 (Public Law 106-457), which authorizes the secondary treatment of effluent from the SBIWTP in Mexico if secondary treatment is not provided in the United States.*
> - *In February 2001, the California Regional Water Quality Control Board, San Diego Region (Regional Board), filed a lawsuit (Case No. 01-CV-0270BTM [JFS]) in federal district court in San Diego against the USIBWC alleging violations of the federal CWA and state Porter-Cologne Act based on the SBIWTP's inability to meet all the limitations of its NPDES permit. In December 2003, the Court entered summary judgment against the USIBWC finding that SBIWTP discharges exceed, and will continue to exceed, the effluent limits and treatment standards set forth in the NPDES permit in the absence of secondary treatment, and that the discharges constitute violations of the federal CWA and California Porter-Cologne Act. The Regional Board sought an injunction requiring the USIBWC to comply with all the*

requirements of its NPDES permit. On December 6, 2004, the United States District Court issued an order entering final judgment in favor of the Regional Board and setting a schedule for USIBWC to come into compliance with the effluent standards and limitations of its NDPES permit. The order provides that the USIBWC shall achieve compliance not later than September 30, 2008.

- *In March 2003, the Comision Estatal de Servicios Publicos Tijuana (CESPT) and the USEPA issued a comprehensive master plan addressing sanitation problems in the San Diego-Tijuana border region as called for in Public Law 106-457. That plan is titled the Potable Water and Wastewater Master Plan for Tijuana and Playas de Rosarito (Master Plan). The Master Plan found that a new 59-mgd secondary treatment plant in Mexico would have the capacity to treat both the SBIWTP's effluent and additional sewage flows generated by the region, and would be adequate to meet the region's needs through 2023.*
- *In February 2004, consistent with Public Law 106-457, IBWC Minute 311, was signed by the United States and Mexican Sections of the IBWC. This minute provides a framework for the design, construction, operation, and maintenance of secondary treatment facilities in Mexico for sewage originating in Tijuana, Mexico, including sewage currently treated to the advanced primary level at the SBIWTP, if secondary treatment is not provided in the United States.*
- *On November 16, 2004, Congress passed legislation to amend Public Law 106-457. The legislation initiated as House Rule (H.R.) 4794, was signed by the President on November 30, 2004, as Public Law 108-425. The legislation amends the Tijuana River Valley Estuary and Beach Clean Up Act of 2000 to extend the authorization of appropriations and for other purposes.*

The consistency determination examines the current status of the NPDES permit for wastewater discharges from the SBIWTP:

On November 14, 1996 the Regional Board adopted Order No. 96-50, NPDES Permit No. CA0108928 establishing requirements for the discharge of up to 25 mgd of treated wastewater (secondary effluent) from the SBIWTP to the Pacific Ocean through the SBOO. Monitoring and Reporting Program (MRP) No. 96-50 consists of general monitoring and reporting provisions, influent monitoring, effluent monitoring, and receiving environment monitoring. Concurrent with the issuance of the NPDES permit described above on November 14, 1996, the Regional Board also issued Cease and Desist Order (CDO) 96-52, to establish a time schedule for achieving compliance with the effluent limitations in Order No. 96-50, to establish interim advanced primary treatment effluent limitations, and to establish an interim flow rate prohibition.

Since 1996, the Regional Board has adopted several amendments to the NPDES permit and addendums to the CDO to address changes to the schedule for submission of monitoring reports, establish new effluent limitations for primary pollutants of concern, and to address changes to the schedule for implementation of secondary treatment at the SBIWTP.

The consistency determination provides an update on the current operating status of the SBIWTP:

> *The SBIWTP operates as an advanced primary treatment plant. Basic primary treatment involves screening, grit removal, removal of solid matter using gravity, and chlorine disinfection. Advanced primary treatment involves adding chemicals that increase the volume of solid matter removed. Chlorination is conducted from November to April each year. Construction of a proposed dechlorination facility at Goat Canyon has been postponed. The SBIWTP is designed to treat an average of 25 mgd of wastewater from Tijuana with disposal to the ocean via the SBOO. The City of San Diego SBWRP also uses the SBOO to convey excess effluent from the plant that cannot be reused. The outfall eliminated the need to use the emergency pipeline connecting the main collector line in Tijuana and a branch collector line of the San Diego Metropolitan sewage system. This emergency connection, constructed in 1966, was used until January 1999 when the SBOO was completed and intermittently until October 2000.*
>
> *In 2004, the USIBWC completed construction of the primary effluent return connection (PERC) facilities to connect the SBIWTP to the existing conveyance/pumping facilities in Tijuana (i.e., Pump Station 1/1A Parallel Conveyance System) and to provide an avenue, if needed, to return effluent from the SBIWTP for disposal to the ocean in Mexico. The PERC facilities consist of a 48-inch diameter reinforced concrete pipe extending about 1,200 feet from the United States/Mexico border. This pipe connects to the SBIWTP facilities via a 72-inch by 48-inch T-shaped structure. The connection includes a magnetic flow meter and motor operated control valve housed in a vault, with an isolation structure to facilitate maintenance.*
>
> *The SBIWTP is connected to the Tijuana wastewater collection and treatment system and, therefore, significantly alleviates the burden on that system. The SBIWTP also addresses the problem of sewage flows in the United States in two ways: (1) canyon collectors in Smuggler's Gulch, Goat Canyon, Canyon del Sol, Stewart's Drain, and Silva's Drain capture dry weather raw sewage flows that would otherwise come into the United States through these canyons and gullies and sends the flows directly to the SBIWTP for treatment and discharge through the SBOO; and, (2) a river diversion structure situated on the Mexican border diverts dry weather sewage flows that would otherwise come into the United States through the Tijuana River and pumps those flows into the Tijuana wastewater system, where the sewage is sent to the SBIWTP for treatment and discharged on the United States side of the border through the SBOO, or pumped on the Mexican side of the border to the San Antonio de los Buenos Wastewater Treatment Plant (SABWWTP), Tijuana's major wastewater treatment plant, for* [primary] *treatment or bypass and discharge into the Pacific Ocean at Punta Bandera about 5.6 miles south of the border. A limited amount of wet weather flow is also captured by collectors that are wet weather operable under light rainfall and runoff conditions.*
>
> *Even with operation of the SBIWTP, the existing Tijuana wastewater treatment system has insufficient capacity to treat all the sewage generated in Tijuana. Consequently, Tijuana discharges approximately 6 mgd of sewage directly into the Pacific Ocean untreated about*

> *5.6 miles south of the United States/Mexico border. In addition, the Tijuana collection system infrastructure has been in disrepair for many years, routinely resulting in sewage overflows and spills in Tijuana, including spills into the Tijuana River that can enter the United States.*

Given the Commission's previous two determinations on the consistency of discharging secondary treated wastewater from the SBIWTP into the Pacific Ocean through the SBOO, the issue presently before the Commission in this consistency determination is whether the proposed increase in the volume (from 25 mgd to 59 mgd by the year 2023) of secondary treated wastewater (from a completely mixed aerated pond system in Mexico) to be discharged into the Pacific Ocean through the South Bay Ocean Outfall is consistent with the water quality and marine resources policies of the California Coastal Management Program (CCMP). (In 1994 and 1999, respectively, the Commission determined that the activated sludge secondary treatment alternative (CD-002-94) and the CMA pond system alternative (CD-062-98) (including discharges through the SBOO under both alternatives) were consistent with the CCMP.)

II. <u>Project Description</u>. The *Draft Supplemental Environmental Impact Statement for the Clean Water Act Compliance at the South Bay International Wastewater Treatment Plant (December 2004)* and the consistency determination submitted by the USIBWC examine the proposed construction of a secondary wastewater treatment facility in Mexico, the diversion of advanced primary treated wastewater from the SBIWTP to the secondary facility in Mexico, and the discharge of secondary treated wastewater from that facility into the Pacific Ocean via the SBIWTP and the South Bay Ocean Outfall **(Exhibits 1-3)**. The Commission is reviewing a pump station and pipeline segments located within the existing SBIWTP and an increase in discharge of secondary treated wastewater through the SBOO from the existing 25 million gallons per day (mgd) to 59 mgd by the year 2023.

In explaining the need for the proposed project, the consistency determination notes that:

> *Consistent with Public Law 106-457, the United States and Mexican sections of the IBWC signed Minute 311, Recommendations for Secondary Treatment in Mexico of the Sewage Emanating from the Tijuana River Area in Baja California, Mexico, on February 20, 2004. Under the terms of Minute 311, secondary treatment of advanced primary effluent from the SBIWTP and treatment of additional Tijuana sewage would be provided as follows, if secondary treatment is not provided in the United States:*
>
> - *Subject to availability of annual appropriations, the USIBWC would fund up to $156 million for the engineering and construction, and for a 20-year period, the operation and maintenance of a 59 mgd* [secondary] *wastewater treatment plant in Mexico (including all process, pumping and conveyance facilities) if the secondary treatment of 25 mgd of advanced primary effluent from the SBIWTP is not provided in the United States. Any additional costs would be subject to subsequent Commission* [IBWC] *agreements. The Government of Mexico would continue to cover the corresponding costs for the first 25 mgd as stipulated in Minutes 283 and 296.*

- *Plant capacity would be 59 mgd, consistent with the Tijuana Master Plan undertaken by the USEPA and the CESPT to determine future infrastructure needs through 2023.*
- [Secondary treated] *Effluent not reused in Mexico or the United States could be discharged through the SBOO and would comply with applicable water quality laws of the United States and the state of California.*
- *The project would be implemented through an agreement with a private contractor for the design, construction, and operation of the project with a contract term of 20 years.*
- *Commission oversight of contractor selection and monitoring and evaluation of treatment plant performance would be as in previous Commission* [IBWC] *projects.*
- *The final design of the facilities to be constructed in Mexico and the final arrangement for implementation, as well as the terms under which the USIBWC would pay for the design, construction, operation and maintenance of said facilities, would be established in a subsequent IBWC Minute. If agreement on an operating lease arrangement or design acceptable to both governments is not reached, the stipulations established in IBWC Minutes 283 and 296 would apply.*
- [Secondary] *Treated effluent would comply with the water quality requirements of NPDES Permit No. CA0108928 and could be discharged through the SBOO.*
- *All sludge produced would be the responsibility of the facility owner/operator under the fee-for-service contract established as part of Public Law 106-457.*

The project proposed by the USIBWC calls for a private company, Bajagua Project LLC, to construct and operate a secondary treatment facility in Mexico. The consistency determination states that:

> *The SBIWTP would continue to operate as an advanced primary facility and 25 mgd of primary treated effluent would be sent to the secondary treatment facility in Mexico. Up to 34 mgd of raw sewage would be pumped to the Public Law 106-457 treatment facility and 25 mgd conveyed to Mexico's SABWWTP* [San Antonio de los Buenos Wastewater Treatment Plant, located on the coast approximately six miles south of the International Border] *for* [primary] *treatment. Treated effluent* [secondary] *at the Bajagua facility would comply with the water quality requirements of NPDES Permit No. CA0108928 and would be discharged through the SBOO. This alternative would require new facilities in the United States and in Mexico as described below. Under the Preferred Alternative up to 59 mgd of secondary treated effluent would be discharged in the United States, via SBOO. Flow increases above the 25 mgd currently permitted would require modification of the current NPDES permit. Up to 25 mgd of treated effluent* [primary] *from SABWWTP would be discharged to the shoreline in Mexico at Punta Bandera and the discharge of untreated effluent at Punta Bandera would cease. In addition, no untreated flows would be discharge to the Tijuana River in dry-weather conditions.*

The Regional Water Quality Control Board has not yet approved the increased discharge through the SBOO; such action will be undertaken at a future date through a modification of the existing NPDES Permit No. CA0108928 held by the USIBWC.

The following facilities would be constructed in the United States within the footprint of the existing SBIWTP:

> *. . . a new pump station at the SBIWTP site as well as about 800 feet of the project's force main and return-flow pipeline. The pump station would be situated on the SBIWTP site, west of the primary sedimentation tanks and north of the southwest entrance to the plant (Figure 3). The pump station would include a connection to the discharge piping from the existing SBIWTP. The pump station design would include an integral wet well sized for 1.5 million gallons for pump station operation and provide short-term storage during peak flow periods. The force main would be 48 inches in diameter, sized to accommodate a peak flow of 40 mgd, and would extend from the discharge header at the Bajagua pump station* [at the SBIWTP] *directly south about 800 feet across the international border.*

In addition, conveyance and treatment facilities will also be constructed in Mexico as a part of the overall USIBWC project: (1) the Bajagua secondary treatment plant; (2) a force main pipeline conveying primary treated effluent from the SBIWTP to the Bajagua plant; (3) Tijuana raw wastewater pump station; (4) Tijuana force main pipeline to convey raw wastewater from the Tijuana sewer system to the Bajagua plant; and (5) the return flow pipeline conveying secondary treated wastewater from the Bajagua plant to the SBIWTP.

III. Status of Local Coastal Program. The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the LCP has been certified by the Commission and incorporated into the California Coastal Management Program (CCMP), it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The City of San Diego's LCP has been certified by the Commission and incorporated into the CCMP.

IV. Federal Agency's Consistency Determination. The U.S. International Boundary and Water Commission has determined the project consistent to the maximum extent practicable with the CCMP.

V. Staff Recommendation.

The staff recommends that the Commission adopt the following resolution:

MOTION: I move that the Commission **concur** with consistency determination CD-059-05 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

Staff Recommendation:

The staff recommends a **YES** vote on the motion. Passage of this motion will result in a concurrence with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution to Concur with Consistency Determination:

The Commission hereby **concurs** with the consistency determination by the U.S. International Boundary and Water Commission, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

VI. Findings and Declarations.

The Commission finds and declares as follows:

A. Water Quality and Marine Resources. The Coastal Act provides:

Section 30230. Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30412.(b) The State Water Resources Control Board and the California regional water quality control boards are the state agencies with primary responsibility for the coordination and control of water quality. The State Water Resources Control Board has primary responsibility for the administration of water rights pursuant to applicable law. The commission shall assure that proposed development and local coastal programs shall not frustrate this section. The commission shall not, except as provided in subdivision (c), modify, adopt conditions, or take any action in conflict with any determination by the State

Water Resources Control Board or any California regional water quality control board in matters relating to water quality or the administration of water rights.

In addition, Section 307(f) of the federal CZMA specifically incorporates the Clean Water Act into the California Coastal Management Program (CCMP). When the Commission has undertaken consistency review for sewage discharges (primarily for secondary treatment waivers), the Commission has relied on the Clean Water Act and its implementing regulations, the California Ocean Plan, the Coastal Act (Chapter 3 policies), and Water Code Section 13142.5 (incorporated into the Coastal Act by Section 30412(a)). These requirements, which are further described and summarized below, provide both specific numerical standards for pollutants, as well as general standards for protection of marine biological productivity.

The California Ocean Plan was originally adopted by the SWRCB and approved by the EPA in June 1972, and is revised every three years. Among the California Ocean Plan requirements are the following water quality objectives (Chapter II):

A. Bacterial Characteristics, for body-contact recreation and shellfish harvesting;

B. Physical Characteristics, including floatables, visible oil and grease, discoloration of the surface, the reduction of light penetration, and the rate of deposition of solid and inert materials on the bottom;

C. Chemical Characteristics, including dissolved oxygen, pH, dissolved sulfide in and near sediments, concentration of substances in the sediments, organic materials in the sediments, and nutrient levels, and including maintenance of standards such as protecting indigenous biota and marine life;

D. Biological Characteristics, including:

1. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.

2. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

3. The concentrations of organic materials in fish, shellfish or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

E. Radioactivity, including maintenance of a standard that marine life shall not be degraded.

General requirements in the Ocean Plan include:

A. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.

B. Waste discharged to the ocean must be essentially free of:

1. Material that is floatable or will become floatable upon discharge.

2. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.

3. Substances which will accumulate to toxic levels in marine waters, sediments or biota.

4. Substances that significantly decrease the natural light to benthic communities and other marine life.

5. Materials that result in aesthetically undesirable discoloration of the ocean surface.

C. Waste effluents shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.

D. Location of waste discharges must be determined after a detailed assessment of the oceanographic characteristics and current patterns to assure that: ...

1. Pathogenic organisms and viruses are not present in areas where shellfish are harvested for human consumption or in areas used for swimming or other body-contact sports.

2. Natural water quality conditions are not altered in areas designated as being of special biological significance.

3. Maximum protection is provided to the marine environment.

In addition, the Ocean Plan contains "Table A" effluent limitations for major wastewater constituents and properties, "Table B" limitations that provide maximum concentrations for toxic materials that may not be exceeded upon completion of initial dilution, and other standards.

The Commission previously found in CD-002-94 that discharge of 25 mgd of secondary treated wastewater (activated sludge process) through the South Bay Ocean Outfall (SBOO) was consistent with the water quality and marine resource policies of the Coastal Act. The Commission subsequently found in CD-137-96 that a temporary discharge of advanced primary treated wastewater through the SBOO (until the secondary treatment facility was constructed) was also consistent with the aforementioned policies of the Coastal Act. Both of these concurrences were supported in part by the Commission's determination that removal of raw

sewage and untreated wastewater from the Tijuana River, its estuary, adjacent beaches, and nearshore waters – by diversion into the South Bay International Wastewater Treatment Plant for secondary or advanced primary treatment and subsequent ocean discharge through the SBOO – significantly improved coastal water quality and marine resources. The Commission's later concurrence with CD-062-98 for discharge of 25 mgd of secondary treated wastewater (completely mixed aerated pond process) reiterated those previous determinations and findings regarding the clear benefits to coastal water quality and marine resources from the diversion, treatment, and discharge of wastewater out of the Tijuana River Valley.

USIBWC states that under the proposed project:

> *All wastewater generated in Tijuana would receive treatment prior to disposal. Secondary effluent from the new facilities would be routed to the SBOO for discharge in accordance to requirements of the NPDES permit. At the same time, 25 mgd effluent* [primary] *currently treated at the SABWWTP would continue to be discharged at Punta Bandera. It is estimated that flows routed to the SBOO would reach up to 59 mgd in 2023.*

The subject consistency determination examines the potential effects on water quality and marine resources in the Tijuana River Valley and offshore coastal waters from the proposed increase in secondary-treated wastewater discharges (from 25 mgd to 59 mgd) through the South Bay Ocean Outfall:

> Tijuana River:
>
> *Under this alternative, dry-weather flows of untreated wastewater into the Tijuana River south of the international border would not occur. Water quality improvements on the Tijuana River and Tijuana Estuary brought about by the routing of wastewater dry-weather flows to the SBIWTP will continue in the future. For this reason, no adverse effects on the Tijuana River and Tijuana Estuary are anticipated.*
>
> *The contamination potential of the Tijuana Estuary during storm events would be reduced under the Preferred Alternative relative to current conditions. As in the case of all alternatives under consideration, future improvements in water quality are anticipated during wet weather conditions by the increased coverage of the Tijuana sewer system and upgrades to the Tecate wastewater treatment plant. The Preferred Alternative would also reduce sewer overflows reaching the international boundary by placement of treatment facilities in the upper reaches of the watershed. By providing treatment in upstream facilities, sewage transport through the aging collectors of the main Tijuana area would be greatly reduced. The overflow potential would also be reduced by allowing a better use of the hydraulic capacity of existing collectors.*
>
> South Bay Ocean Outfall Discharge Increase:
>
> *Impacts to water quality, from a human health protection perspective, in the vicinity of the SBOO would not be significant. At the SBOO, compliance with the California Ocean Plan objectives for total coliform bacteria is anticipated. Findings of the 2004 Shore and Ocean Discharge Modeling Report indicate that the discharge through the SBOO would always*

achieve an initial dilution of at least 100 to 1 for all flows considered. The median initial dilution for the SBOO discharge varies between 193 and 199 to 1. Based on the findings, it was concluded that bacterial concentrations at the shore monitoring stations are not likely to be exceeded.

In addition to bacterial concentrations, the California Ocean Plan (Table B) also lists human health protection objectives for 20 noncarcinogens, and 42 carcinogens. Potential compliance with these objectives for discharge of secondary effluent through the SBOO was evaluated in 2003 as part of the environmental review of the Potable Water and Wastewater Master Plan for Tijuana and Playas de Rosarito. This compliance evaluation re-evaluated findings of a previous evaluation performed to assess Long Term Treatment Options of the SBIWTP. On the basis of 1995-1996 wastewater characterization data, both studies concluded that the secondary treated effluent would meet objectives for noncarcinogen substances based on the permitted 1:100 dilution. Compliance with objectives for most carcinogens was also anticipated for most substances, with the potential exceptions of DDT and PAHs. These potential exceedances, however, were not considered significant because their calculated concentrations included multiple non-detected values represented by the analytical detection limit. Since the discharge of secondary effluent would meet NPDES permit requirements in terms of water quality, a significant improvement relative to current conditions is expected.

Flow increases from the current discharge of 25 mgd [of advanced primary effluent] *would not have adverse effects because of the improved* [secondary] *effluent quality and the fact that the discharge through the SBOO would always achieve an initial dilution of at least 100 to 1. Findings of the 2004 Shore and Ocean Discharge Modeling Report indicate that the median initial dilution for the SBOO discharge would vary between 193 and 199 to 1 for all flows considered because as the flow increases, so do the number of outfall ports that will be open and discharging.*

At the SBOO, compliance with California Ocean Plan water quality objectives for protection of marine biota is also anticipated. None of the 14 indicator parameters would exceed objectives specified for the edge of the allowable 1:100 dilution zone. Likely compliance of the SBOO secondary effluent discharge with California Ocean Plan objectives has also been reported in two previous compliance assessments.

While the current SBIWTP primary effluent does not meet NPDES permit limits for acute and chronic toxicity, significant reduction of effluent toxicity is expected as a result of secondary treatment. A 1998 toxicity identification evaluation of the primary effluent identified surfactants as the main source of toxicity, with potential contributions by ammonia, zinc, and the pesticides diazinon and carbofuran. Secondary treatment would significantly reduce the concentration of surfactants, and help reduce the concentrations of pesticides and zinc. California Ocean Plan effluent limits for ammonia would also be achieved.

Likely compliance of the secondary effluent with California Ocean Plan objectives for pH, oil and grease, and dissolved oxygen demand was evaluated in compliance evaluations conducted by CH2M Hill (1998) and CDM (2003). These studies determined that the SBOO

> *secondary effluent would continue to comply with a 6.0 to 9.0 pH criterion, and oil and grease limits of 25 mg/L for monthly average and 40 mg/L for weekly average. Likely compliance with oxygen demand requirements, evaluated by modeling, indicated that the largest percent reduction in ambient dissolved oxygen levels as a result of the SBOO discharge would not exceed 1.4 percent, well below the 10 percent value specified by the California Ocean Plan.*
>
> *Solids deposition from the outfall would be reduced to 38 percent of current deposition. Released solids could exceed reference sediment quality values for 3 of 10 metals. Adverse effects are not likely to extend beyond the immediate outfall vicinity as documented by the SBOO long-term monitoring program.*

The consistency determination also examines the effect of continued discharges of primary-treated wastewater from the San Antonio de los Buenos Wastewater Treatment Plant at Punta Bandera (located in Mexico six miles south of the International Border) on coastal water quality north of the border:

> *In terms of the Punta Bandera coastal discharge, findings of the Shore and Ocean Discharge Modeling Report indicate that bacterial concentrations at border Station S04 would meet California Ocean Plan objectives for total coliform bacteria. Occasional exceedances are possible, with a low probability of occurrence that would fall well within allowable values specified by the California Ocean Plan (no more than 20 percent of the samples exceeding 1,000 per 100 mL in any 30-day period). Consequently, impacts are not considered significant in terms of human health protection.*
>
> *Based on the lowest anticipated dilution factors for coastal Station S04 in the international border, none of the 14 parameters evaluated would exceed California Ocean Plan objectives under the Preferred Alternative. No significant impacts on marine biota are expected as the Punta Bandera discharge* [of primary-treated wastewater] *would meet the Ocean Plan's objectives at the international border.*

The consistency determination concludes by stating that:

> *The Bajagua LLC proposal will benefit terrestrial, estuarine, and marine resources by improving water quality in the ocean in the vicinity of the SBIWTP and the Tijuana River estuary. Compliance with the Ocean Plan's objectives for total coliform and water quality objectives for the projection of marine biota is anticipated. A significant reduction of effluent toxicity is also expected, as a result of secondary treatment. In addition, discharges* [of primary-treated wastewater] *in Mexico at Punta Bandera would meet California Ocean Plan objectives for total coliform bacteria at the international border. Given the above, it is the determination of the USIBWC that the Preferred Alternative is fully consistent with Article 4 (Marine Environment) of the California Coastal Act and the Coastal Zone Management Plan.*

The Commission concurs with the conclusions made by the USIBWC. The proposed project will improve the treatment level of wastewater which originates in Mexico and flows by gravity into California. As a result of the proposed project, a greater volume of wastewater will receive a higher level of treatment prior to its discharge through the SBOO into the Pacific Ocean. The

proposed increase in wastewater discharge through the South Bay Ocean Outfall will occur due to the construction of a secondary treatment facility in Mexico that will have the capacity to treat increased volumes of wastewater generated in Tijuana, which in turn should lead to a decrease in (but not a complete elimination of) the volume of untreated wastewater flowing north across the International Border into the Tijuana River Estuary and, ultimately, the Pacific Ocean.

Notwithstanding this improvement, continued discharge of primary-treated wastewater into the surf zone in Mexico six miles south of the International Border could adversely affect California coastal water quality, and wet weather storm flows in the Tijuana River will periodically carry untreated sewage through the Tijuana River Valley to the ocean. However, discharge of secondary treated wastewater up to the proposed increased discharge level of 59 mgd (by the year 2023) would eliminate the current discharge into the ocean of advanced primary effluent from the SBIWTP and allow the plant to comply with California Ocean Plan standards, as required under the NPDES permit issued by the California Regional Water Quality Control Board. Continued effluent monitoring and implementation of toxicity identification evaluations will help to ensure compliance with and enforcement of the NPDES permit conditions.

The Commission previously documented in its concurrences with construction, operation, and modifications of the SBIWTP that marine resources present in the Tijuana River estuary and in ocean waters at and shoreward of the SBOO discharge point must be protected from unavoidable adverse water quality effects generated by the SBIWTP. The Commission finds that the proposed increase in the discharge volume of effluent from the proposed secondary wastewater treatment facility in Mexico is consistent with the water quality and marine resource policies of the CCMP (Sections 30230, 30231, and 30412 of the Coastal Act).

B. Recreation. The Coastal Act provides the following:

> *Section 30220. Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*
>
> *Section 30240.*
>
> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and park and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuation of such habitat areas.*

The consistency determination examines the public recreational resources in the Tijuana River Valley and along the shoreline area north of the International Border:

> *San Diego County has 72 miles of coastline, including 52 designated beaches and parks. Eleven of these beaches and parks occur in the South Bay area and would benefit from the*

project. Existing recreational beaches in the vicinity include Border Field State Park, the Imperial Beach shoreline, and Silver Strand State Beach. Although these beaches have good public access, they are not as popular as others elsewhere in the county due to prolonged closure of the beaches from sewage contamination. During the past two decades, the California Department of Health Services has imposed numerous quarantines on beaches from the international border to the mouth of the Tijuana River and has had to close beaches from Imperial Beach to as far north as Coronado. This has had an adverse impact on tourism and recreation in the South Bay and has been damaging to local economies.

Recreational use and preservation of natural coastal resources account for approximately 80 percent of the Tijuana River valley acreage. Recreational areas include the Tijuana River Valley Regional Park, Border Field State Park, Tijuana River National Estuarine Sanctuary, Tijuana Slough National Wildlife Refuge, and beach areas. . . .

The Tijuana River Valley Regional Park consists of approximately 1,800 acres west of the SBIWTP, of which 1,638 acres are owned by the County of San Diego. Other land uses in the park are under the jurisdiction of the City of San Diego and the California Department of Fish and Game. The park is generally bounded on east by Dairy Mart Road (except for a portion of the Dairy Mart ponds that extend further east), the Tijuana River Estuary on the west, the United States/Mexico international border on the south and Sunset Avenue and the residential community to the north. The park includes a mixture of recreational uses, agriculture and native habitats.

Border Field State Park is part of the Estuarine Reserve and is located at the westernmost end of the Tijuana River valley, at the southwest corner of the continental United States. This park is one of the few remaining beaches in the United States that allows horseback riding, a popular form of recreation in this park. Other activities include bicycling, hiking/walking, picnicking, and nature viewing. The park is open for day use only. Border Field State Park offers a unique view of the border and the Tijuana bullring, as well as views of the Los Coronados Islands and Playas de Tijuana. No camping is allowed in the park.

The consistency determination examines the potential effects on public recreation in the project area from the proposed increase in secondary treated wastewater discharges through the SBOO:

- *The project will have beneficial impacts to public recreation on beaches, in the ocean, and at recreational areas in the Tijuana River Valley by improving estuarine and marine water quality and reducing beach closures.*

- *The secondary treated effluent via SBOO represents an improvement in water quality compared to the discharge of advanced-primary treated effluent under the SBIWTP's current operating conditions.*

- *The discharge of secondary-treated effluent from the project's secondary treatment plant in Mexico, via SBOO, would meet Ocean Plan water quality standards designed to protect recreational resources.*

- *The project would reduce the incident of beach closures thereby encouraging the use of nearby coastal areas including beaches and marine environments for recreational activities. The avoidance of dry-weather sewage flows would reduce the serious public health risks associated with the recreational use of the area, including vector-borne disease and high bacteria levels on beaches and in coastal ocean waters. Implementation of this alternative would assist in the removal of local beach quarantines.*

In previous concurrences with consistency determinations for discharging secondary treated wastewater through the SBOO, the Commission concluded that this type of discharge would benefit public recreation in the Tijuana River Valley, the shoreline north of the International Border, and in adjacent ocean waters due to the removal of raw sewage flows from the Tijuana River Valley and the upgrade in ocean wastewater discharges from advanced primary to secondary treatment. The proposed increase in discharges through the SBOO from the current 25 mgd of advanced primary wastewater to 59 mgd of secondary treated wastewater (by the year 2023) is consistent with previous Commission actions to protect public recreation in the region. The Commission agrees with the USIBWC that by removing additional sewage and wastewater from the Tijuana River Valley and by improving the treatment level of increased volumes of wastewater discharged through the SBOO, upland and ocean recreation areas in the region will be protected and improved for public recreational activities. Therefore, the Commission finds that the proposed increase in the discharge volume of effluent through the SBOO is consistent with the public recreation policies of the CCMP (Sections 30220 and 30240) of the Coastal Act.

C. Environmentally Sensitive Habitat. The Coastal Act provides the following:

Section 30240.

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and park and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuation of such habitat areas.

The proposed construction of the Bajagua Project Pump Station and approximately 800 to 1,400 feet of force main and return flow pipeline segments between the pump station and the International Border will occur within the existing developed footprint of the South Bay International Wastewater Treatment Plant. The approximately 2.5 acres of land to be graded, excavated, and/or paved has been previously disturbed and does not currently support sensitive habitat or protected species. The consistency determination states that:

Indirect construction impacts could potentially result to protected species in the vicinity of the SBIWTP site due to construction noise and glare. The least Bell's vireo and coastal California gnatcatcher do not appear to occur in the vicinity. Therefore, significant adverse impacts to protected species from construction noise and glare are not expected.

Construction traffic noise, including hauling materials and soil to and from the site, could potentially disturb least Bell's vireos in areas of potential vireo habitat along transportation routes to the site. This impact would be mitigated to reduce the level of impact to less than significant (See Section 4.4.2 for mitigation measures).

The pump station's motors and pump housings would be designed with sound insulation so that ongoing operational nose from the pump station would be less than significant.

The project includes the following noise mitigation measure:

Standard techniques for reducing construction noise impacts such as using noise suppressing mufflers on construction equipment and complying with the local noise control ordinance would reduce potential noise impacts on least Bell's vireo in the vicinity of the SBIWTP to a less than significant level.

In conclusion, the Commission agrees with the USIBWC that the proposed construction of a pump station and pipelines within the developed footprint of the SBIWTP will not adversely affect sensitive habitat or species. Therefore the Commission finds that the proposed project is consistent with the environmentally sensitive habitat policy of the CCMP (Section 30240 of the Coastal Act).

SUBSTANTIVE FILE DOCUMENTS:

1. Draft Supplemental Environmental Impact Statement, Clean Water Act Compliance at the South Bay International Wastewater Treatment Plant (December 2004).

2. Draft Supplemental Environmental Impact Statement for the International Boundary and Water Commission South Bay International Wastewater Treatment Plant Long Term Treatment Options (January 1998).

3. Preliminary Coastal Consistency Determination for South Bay International Wastewater Treatment Plant Long Term Treatment Options (May 1998).

4. Draft Supplement to the Final Supplemental Environmental Impact Statement for the International Boundary and Water Commission International Wastewater Treatment Plant Interim Operation Project (October 1998).

5. Final Supplemental Environmental Impact Statement for the International Boundary and Water Commission International Wastewater Treatment Plant Interim Operation Project (November 1996).

6. Final Environmental Impact Statement, International Boundary and Water Commission South Bay International Wastewater Treatment Plant (1994).

7. Consistency and Negative Determinations for the South Bay International Wastewater Treatment Plant:

CD-2-94 (treatment plant and ocean outfall)
ND-1-95 (plant modifications)
CD-31-95 (outfall modifications)
ND-34-96 (tunnel spoils disposal site)
ND-77-96 (dechlorination facility)
ND-120-96 (Smuggler's gulch culvert)
ND-136-96 (removal of offshore construction platform)
CD-137-96 (interim discharge of advanced primary effluent through 2001)
CD-138-96 (vegetation removal)
ND-53-97 (outfall modifications)
ND-150-97 (road improvements)
ND-122-98 (change in advanced primary effluent characteristics)

8. CC-62-91 (City of San Diego, Point Loma Treatment Plant outfall extension).

9. NE-94-95 (City of San Diego, Point Loma Treatment Plant secondary treatment waiver).

10. CDP 6-88-277 (City of San Diego, South Bay Land Outfall).

11. CDP 8-91-217 (City of San Diego, Point Loma Treatment Plant outfall extension).

12. Certified Tijuana River Valley Land Use Plan and City of San Diego LCP Implementing Ordinances.

13. Tijuana River National Estuarine Sanctuary Management Plan.

14. International Wastewater Treatment Plant -- Biological Assessment, December 1993.

15. Hydrogeological Assessment of the Tijuana River Valley, State Water Resources Control Board, February 1992.